

I. Complete the following problems from the textbook:

Chapter 6 – Bending Members

6-3, 6-9, 6-22, 6-34, 6-40, 6-44, 6-47, 6-49, 6-51

II. Answer the following problems:

1. The beam in Figure 1 is a W10x77 and has continuous lateral support. The load P is a service live load. A992 steel is used. What is the maximum permissible value of P ?

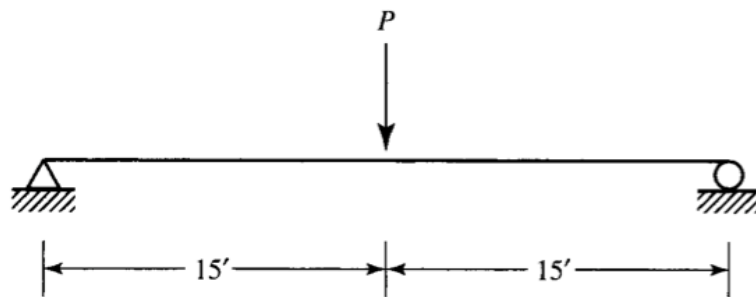


Figure 1

2. The beam shown in Figure 2 is a two-span beam with a pin (hinge) in the center of the left span, making the beam statically determinate. There is continuous lateral support. The concentrated loads are service live loads. Determine whether a W18x60 of A992 steel is adequate.

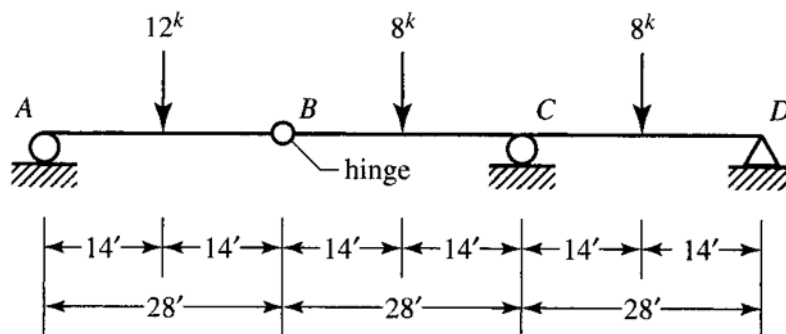


Figure 2

NOTE: Perform calculations for LRFD only.